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Gln Gly Pro Pro Gly Val Asp Leu Tyr Arg Leu Glu Lys Leu Ser Ser
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Ser Arg Tyr Gln Asp Gln Ala Val Leu Phe Ile Pro Ala Met Lys Arg
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Ser Leu Ala Gly Arg Tyr Arg Cys Ser Tyr Gln Asn Gly Ser Leu Trp
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Thr Tyr Arg Cys Tyr Ser Phe Ser Ser Arg Asp Pro Tyr Leu Trp Ser
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Ala Pro Ser Asp Pro Leu Glu Leu Val Val Thr Gly Thr Ser Val Thr
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Thr Glu Thr Ser Arg Ser Ile Thr Thr Ser Pro Lys Glu Ser Asp Ser
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Pro Ala Gly Pro Ala Arg Gln Tyr Tyr Thr Lys Gly Asn Leu Val Arg
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Ile Cys Leu Gly Ala Val Ile Leu Ile Ile Leu Ala Gly Phe Leu Ala
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Glu Asp Trp His Ser Arg Arg Lys Arg Leu Arg His Arg Gly Arg Ala
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Pro Thr Glu Pro Pro Ser Ser Val Ala Glu Phe Ser Glu Ala Thr Ala
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Cys Gln Gly Pro Pro Asp Val Asp Leu Tyr Arg Leu Glu Lys Leu Lys
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Pro Glu Lys Tyr Glu Asp Gln Asp Phe Leu Phe Ile Pro Thr Met Glu
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Trp Ser Leu Pro Ser Asp Gln Leu Glu Leu Ile Ala Thr Gly Val Tyr
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Ala Lys Pro Ser Leu Ser Ala His Pro Ser Ser Ala Val Pro Gln Gly
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Arg Asp Val Thr Leu Lys Cys Gln Ser Pro Tyr Ser Phe Asp Glu Phe
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Val Leu Tyr Lys Glu Gly Asp Thr Gly Pro Tyr Lys Arg Pro Glu Lys
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Trp Tyr Arg Ala Asn Phe Pro Ile Ile Thr Val Thr Ala Ala His Ser
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Gly Thr Tyr Arg Cys Tyr Ser Phe Ser Ser Ser Pro Tyr Leu Trp
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Lys Pro Met Asn Ile Thr Ala Ser Pro Glu Gly Leu Ser Pro Pro Ile
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Gly Phe Ala His Gln His Tyr Ala Lys Gly Asn Leu Val Arg Ile Cys
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Leu Gly Ala Thr Ile Ile Ile Leu Leu Gly Leu Leu Ala Glu Asp
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Lys Cys Gln Ser Pro Tyr Ser Phe Asp Glu Phe Val Leu Tyr Lys Glu
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Gly Asp Thr Gly Pro Tyr Lys Arg Pro Glu Lys Trp Tyr Arg Ala Asn
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Phe Pro Ile Ile Thr Val Thr Ala Ala His Ser Gly Thr Tyr Arg Cys
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Tyr Ser Phe Ser Ser Ser Pro Tyr Leu Trp Ser Ala Pro Ser Asp
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185

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His Tyr Ala Lys Gly Asn Leu Val Arg Ile Cys Leu Gly Ala Thr Ile
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Pro Ala Gly Pro Ala Arg Gln Tyr Tyr Thr Lys Gly Asn Leu Val Arg
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                                                    270
Ile Cys Leu Gly Ala Val Ile Leu Ile Leu Ala Gly Phe Leu Ala
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                                                285
Glu Asp Trp His Ser Arg Arg Lys Arg Leu Arg His Arg Gly Arg Ala
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                                            300
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 Val
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 Leu
 Glu
 Leu
 Pro
 Val
 Thr
 Leu
 Arg
 Cys

 Gln
 Gly
 Pro
 Val
 Asp
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 Tyr
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 Leu
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 Leu
 Pro
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 He
 Inch
 Leu
 Inch
 Inch

Ser Leu Ala Gly Arg Tyr Arg Cys Ser Tyr Gln Asn Gly Ser Leu Trp 85 Ser Leu Pro Ser Asp Gln Leu Glu Leu Val Ala Thr Gly Val Phe Ala 105 110 100 Lys Pro Ser Leu Ser Ala Gln Pro Gly Pro Ala Val Ser Ser Gly Gly 125 120 Asp Val Thr Leu Gln Cys Gln Thr Arg Tyr Gly Phe Asp Gln Phe Ala 135 140 Leu Tyr Lys Glu Gly Asp Pro Ala Pro Tyr Lys Asn Pro Glu Arg Trp 150 155 Tyr Arg Ala Ser Phe Pro Ile Ile Thr Val Thr Ala Ala His Ser Gly 170 Thr Tyr Arg Cys Tyr Ser Phe Ser Ser Arg Asp Pro Tyr Leu Trp Ser 185 180 Ala Pro Ser Asp Pro Leu Glu Leu Val Val Thr Gly Thr Ser Val Thr 200 205 Pro Ser Arg Leu Pro Thr Glu Pro Pro Ser Ser Val Ala Glu Phe Ser 215 220 Glu Ala Thr Ala Glu Leu Thr Val Ser Phe Thr Asn Lys Val Phe Thr 240 235 Thr Glu Thr Ser Arg Ser Ile Thr Thr Ser Pro Lys Glu Ser Asp Ser 250 Pro Ala Gly Pro Ala Arq Gln Tyr Tyr Thr Lys Gly Asn Leu Val Arg 265 Ile Cys Leu Gly Ala Val Ile Leu Ile Ile Leu Ala Gly Phe Leu Ala 275 280 Glu Asp Trp His Ser Arg Arg Lys Arg Leu Arg His Arg Gly Arg Ala 295 300 Val Gln Arg Pro Leu Pro Pro Leu Pro Pro Leu Pro Gln Thr Arg Lys 320 315 305 310 Ser His Gly Gly Gln Asp Gly Gly Arg Gln Asp Val His Ser Arg Gly 330 Leu Cys Ser

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tcacacgggg gtcaggatgg aggccgacag gatgttcaca gccgcgggtt atgttca
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<211> 339

<212> PRT

<213> Homo sapiens

<400> 40

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Ile Cys Leu Gly Ala Val Ile Leu Ile Ile Leu Ala Gly Phe Leu Ala 280 Glu Asp Trp His Ser Arg Arg Lys Arg Leu Arg His Arg Gly Arg Ala 295 300 Val Gln Arg Pro Leu Pro Pro Leu Pro Pro Leu Pro Gln Thr Arg Lys 310 315 Ser His Gly Gly Gln Asp Gly Gly Arg Gln Asp Val His Ser Arg Gly 330 Leu Cys Ser

<210> 41 <211> 939 <212> DNA <213> Mus musculus

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ttgttggggc ttctagcaga ggattggcac agtcggaaga aatgcctgca acacaggatg

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939

<210> 42 <211> 313 <212> PRT <213> Mus musculus

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<400> 42

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Val Leu Tyr Lys Glu Gly Asp Thr Gly Pro Tyr Lys Arg Pro Glu Lys
                    150
                                        155
Trp Tyr Arg Ala Asn Phe Pro Ile Ile Thr Val Thr Ala Ala His Ser
                                    170
                                                        175
                165
Gly Thr Tyr Arg Cys Tyr Ser Phe Ser Ser Ser Pro Tyr Leu Trp
                                                    190
                                185
            180
Ser Ala Pro Ser Asp Pro Leu Val Leu Val Val Thr Gly Leu Ser Ala
                            200
                                                205
Thr Pro Ser Gln Val Pro Thr Glu Glu Ser Phe Pro Val Thr Glu Ser
                        215
                                            220
Ser Arg Arg Pro Ser Ile Leu Pro Thr Asn Lys Ile Ser Thr Thr Glu
                                        235
Lys Pro Met Asn Ile Thr Ala Ser Pro Glu Gly Leu Ser Pro Pro Ile
                                    250
Gly Phe Ala His Gln His Tyr Ala Lys Gly Asn Leu Val Arg Ile Cys
                                265
Leu Gly Ala Thr Ile Ile Ile Leu Leu Gly Leu Leu Ala Glu Asp
                            280
Trp His Ser Arg Lys Lys Cys Leu Gln His Arg Met Arg Ala Leu Gln
                                            300
                        295
Arg Pro Leu Pro Pro Leu Pro Leu Ala
                    310
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<210> 43 <211> 939 <212> DNA

<213> Mus musculus

<400> 43

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<210> 44 <211> 313

<212> PRT

<213> Mus musculus

<400> 44

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Arg Ser Asn Ala Gly Arg Tyr Arg Cys Ser Tyr Gln Asn Gly Ser His
                85
                                    90
Trp Ser Leu Pro Ser Asp Gln Leu Glu Leu Ile Ala Thr Gly Val Tyr
                                105
                                                     110
Ala Lys Pro Ser Leu Ser Ala His Pro Ser Ser Ala Val Pro Gln Gly
                            120
                                                125
Arg Asp Val Thr Leu Lys Cys Gln Ser Pro Tyr Ser Phe Asp Glu Phe
                        135
Val Leu Tyr Lys Glu Gly Asp Thr Gly Pro Tyr Lys Arg Pro Glu Lys
                    150
                                        155
Trp Tyr Arg Val Asn Phe Pro Ile Ile Thr Val Thr Ala Ala His Ser
                165
                                    170
Gly Thr Tyr Arg Cys Tyr Ser Phe Ser Ser Ser Pro Tyr Leu Trp
                                                     190
            180
                                185
Ser Ala Pro Ser Asp Pro Leu Val Leu Val Val Thr Gly Leu Ser Ala
                            200
                                                205
Thr Pro Ser Gln Val Pro Thr Glu Glu Ser Phe Pro Val Thr Glu Ser
                                            220
Ser Arg Arg Pro Ser Ile Leu Pro Thr Asn Lys Ile Ser Thr Thr Glu
                    230
                                        235
Lys Pro Met Asn Ile Thr Ala Ser Pro Glu Gly Leu Ser Pro Pro Ile
                245
                                    250
Gly Phe Ala His Gln His Tyr Ala Lys Gly Asn Leu Val Arg Ile Cys
                                                     270
                                265
Leu Gly Ala Thr Ile Ile Ile Leu Leu Gly Leu Leu Ala Glu Asp
                            280
                                                285
        275
Trp His Ser Arg Lys Lys Cys Leu Gln His Arg Met Arg Ala Leu Gln
                        295
                                            300
Arg Pro Leu Pro Pro Leu Pro Leu Ala
305
                    310
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<211> 939

<212> DNA

<213> Mus musculus

<400> 45

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                                                                       120
                                                                       180
ctgggtcagt cagttattct gaggtgccag ggacctccag atgtggattt atatcgcctg
gagaaactga aaccggagaa gtatgaagat caagactttc tcttcattcc aaccatggaa
                                                                       240
agaagtaatg ctggacggta tcgatgctct tatcagaatg ggagtcactg gtctctccca
                                                                       300
agtgaccage ttgagetaat tgetacaggt gtgtatgeta aacceteact etcageteat
                                                                       360
cccagctcag cagcccctca aggcagggat gtgactctga agtgccagag cccatacagt
                                                                       420
tttgatgaat tcgttctata caaagaaggg gatactgggc cttataagag acctgagaaa
                                                                       480
tggtaccggg ccaatttccc catcatcaca gtgactgctg ctcacagtgg gacgtaccgg
                                                                       540
                                                                       600
tgttacaget tetecagete atetecatae etgtggteag eecegagtga eectetagtg
                                                                       660
cttgtggtta ctggactctc tgccactccc agccaggtac ccacggaaga atcatttcct
                                                                       720
gtgacagaat cetecaggag acettecate ttacecacaa acaaaatate tacaactgaa
aageetatga atateaetge eteteeagag gggetgagee eteeaattgg tittgeteat
                                                                       780
cagcactatg ccaaggggaa tctggtccgg atatgccttg gtgccacgat tataataatt
                                                                       840
                                                                       900
ttgttggggc ttctagcaga ggattggcac agtcggaaga aatgcctgca acacaggatg
                                                                       939
agagetttge aaaggeeact accaecete ceaetggee
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<210> 46 <211> 313 <212> PRT

<213> Mus musculus

<400> 46 Met Ser Pro Ala Ser Pro Thr Phe Phe Cys Ile Gly Leu Cys Val Leu 10 Gln Val Ile Gln Thr Gln Ser Gly Pro Leu Pro Lys Pro Ser Leu Gln Ala Gln Pro Ser Ser Leu Val Pro Leu Gly Gln Ser Val Ile Leu Arg 40 Cys Gln Gly Pro Pro Asp Val Asp Leu Tyr Arg Leu Glu Lys Leu Lys Pro Glu Lys Tyr Glu Asp Gln Asp Phe Leu Phe Ile Pro Thr Met Glu 75 70 Arg Ser Asn Ala Gly Arg Tyr Arg Cys Ser Tyr Gln Asn Gly Ser His 90 Trp Ser Leu Pro Ser Asp Gln Leu Glu Leu Ile Ala Thr Gly Val Tyr 105 Ala Lys Pro Ser Leu Ser Ala His Pro Ser Ser Ala Ala Pro Gln Gly 120 Arg Asp Val Thr Leu Lys Cys Gln Ser Pro Tyr Ser Phe Asp Glu Phe 135 140 Val Leu Tyr Lys Glu Gly Asp Thr Gly Pro Tyr Lys Arg Pro Glu Lys 155 150 Trp Tyr Arg Ala Asn Phe Pro Ile Ile Thr Val Thr Ala Ala His Ser 170 Gly Thr Tyr Arg Cys Tyr Ser Phe Ser Ser Ser Pro Tyr Leu Trp 185 Ser Ala Pro Ser Asp Pro Leu Val Leu Val Val Thr Gly Leu Ser Ala 200 Thr Pro Ser Gln Val Pro Thr Glu Glu Ser Phe Pro Val Thr Glu Ser 215 220 Ser Arg Arg Pro Ser Ile Leu Pro Thr Asn Lys Ile Ser Thr Thr Glu 230 235 Lys Pro Met Asn Ile Thr Ala Ser Pro Glu Gly Leu Ser Pro Pro Ile 250 245 Gly Phe Ala His Gln His Tyr Ala Lys Gly Asn Leu Val Arg Ile Cys 265 Leu Gly Ala Thr Ile Ile Ile Leu Leu Gly Leu Leu Ala Glu Asp 280 Trp His Ser Arg Lys Lys Cys Leu Gln His Arg Met Arg Ala Leu Gln 295 300 Arg Pro Leu Pro Pro Leu Pro Leu Ala 310

<210> 47

<211> 939

<212> DNA

<213> Mus musculus

<400> 47

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ctgggtcagt	cagttattct	gaggtgccag	ggacctccag	atgtggattt	atatcgcctg	180
gagaaactga	aaccggagaa	gtatgaagat	caagactttc	tcttcattcc	aaccatggaa	240
		tcgatgctct				300

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360
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cccagctcag cagtccctca aggcagggat gtgactctga agtgccagag cccatacagt
                                                                       420
tttgatgaat tcgttctata caaagaaggg gatactgggc cttataagag acctgagaaa
                                                                       480
                                                                       540
tggtaccggg ccaatttccc catcatcaca gtgactgctg ctcacagtgg gacgtaccgg
                                                                       600
tgttacagct tctccagctc atctccatac ctgtggtcag ccccgagtga ccctctagtg
                                                                       660
cttgtggtta ctggactctc tgccactccc agccaggtac ccacggaaga atcatttcct
                                                                       720
qtqacaqaat cctccaggag accttccatc ttacccacaa acaaaatatc tacaactgaa
                                                                       780
aagectatga atateaetge eteteeagag gggetgagee eteeaattgg tittgeteat
caqcactatq tcaaggggaa tctggtccgg atatgccttg gtgccacgat tataataatt
                                                                       840
                                                                       900
ttgttggggc ttctagcaga ggattggcac agtcggaaga aatgcctgca acacaggatg
                                                                       939
agagetttgc aaaggeeact accaeceete ceaetggee
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<211> 313

<212> PRT

<213> Mus musculus

<400> 48

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Met Ser Pro Ala Ser Pro Thr Phe Phe Cys Ile Gly Leu Cys Val Leu
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Gln Val Ile Gln Thr Gln Ser Gly Pro Leu Pro Lys Pro Ser Leu Gln
                                25
Ala Gln Pro Ser Ser Leu Val Pro Leu Gly Gln Ser Val Ile Leu Arg
                            40
        35
Cys Gln Gly Pro Pro Asp Val Asp Leu Tyr Arg Leu Glu Lys Leu Lys
                        55
                                             60
Pro Glu Lys Tyr Glu Asp Gln Asp Phe Leu Phe Ile Pro Thr Met Glu
                    70
                                         75
Arg Ser Asn Ala Gly Arg Tyr Arg Cys Ser Tyr Gln Asn Gly Ser His
                                    90
                85
Trp Ser Leu Pro Ser Asp Gln Leu Glu Leu Ile Ala Thr Gly Val Tyr
                                105
                                                     110
Ala Lys Pro Ser Leu Ser Ala His Pro Ser Ser Ala Val Pro Gln Gly
                            120
                                                 125
Arg Asp Val Thr Leu Lys Cys Gln Ser Pro Tyr Ser Phe Asp Glu Phe
                        135
Val Leu Tyr Lys Glu Gly Asp Thr Gly Pro Tyr Lys Arg Pro Glu Lys
                                         155
                    150
Trp Tyr Arg Ala Asn Phe Pro Ile Ile Thr Val Thr Ala Ala His Ser
                                     170
                165
Gly Thr Tyr Arg Cys Tyr Ser Phe Ser Ser Ser Pro Tyr Leu Trp
                                                     190
                                185
Ser Ala Pro Ser Asp Pro Leu Val Leu Val Val Thr Gly Leu Ser Ala
                                                 205
                            200
Thr Pro Ser Gln Val Pro Thr Glu Glu Ser Phe Pro Val Thr Glu Ser
                        215
                                             220
Ser Arg Arg Pro Ser Ile Leu Pro Thr Asn Lys Ile Ser Thr Thr Glu
                                         235
                    230
Lys Pro Met Asn Ile Thr Ala Ser Pro Glu Gly Leu Ser Pro Pro Ile
                                     250
                                                         255
                245
Gly Phe Ala His Gln His Tyr Val Lys Gly Asn Leu Val Arg Ile Cys
                                265
            260
Leu Gly Ala Thr Ile Ile Ile Ile Leu Leu Gly Leu Leu Ala Glu Asp
                            280
                                                 285
        275
Trp His Ser Arg Lys Lys Cys Leu Gln His Arg Met Arg Ala Leu Gln
                                             300
                        295
Arg Pro Leu Pro Pro Leu Pro Leu Ala
                    310
305
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      <400> 49
Ser Tyr Trp Ile Ser
      <210> 50
      <211> 17
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      <400> 50
Arg Ile Asp Pro Ser Asp Ser Tyr Thr Asn Tyr Ser Pro Ser Phe Gln
Gly
      <210> 51
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      <213> Homo sapiens
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His Gly Ser Asp Arg Gly Trp Gly Phe Asp Pro
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      <212> PRT
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Asn Gly Val Asn Ser Asp Val Gly Tyr Tyr Asn Pro Val Ser
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      <213> Homo sapiens
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Glu Val Asn Lys Arg Pro Ser
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      <211> 9
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Ser Tyr Thr Ser Asn Asn Thr Pro Val
      <210> 55
      <211> 5
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<212> PRT
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      <400> 55
Ser Tyr Ser Met Asn
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Ser Ile Ser Ser Ser Gly Arg Tyr Ile Ser Tyr Gly Asp Ser Val Lys
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Gly
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      <213> Homo sapiens
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Asp Ile Ser Ser Ala Met Asp Val
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Thr Arg Gly Gly Asn Asn Ile Gly Ser Lys Ser Val His
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Asp Asp Ser Asp Arg Pro Ser
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Val Trp Asp Ser Ser Ser Asp His His Val
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      <210> 61
      <211> 5
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<400> 61
Ser Tyr Trp Met Ser
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      <211> 17
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Asn Ile Lys Gln Asp Gly Ser Glu Lys Tyr Tyr Ala Asp Ser Val Arg
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Gly
      <210> 63
      <211> 14
      <212> PRT
      <213> Homo sapiens
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Asp Lys Trp Glu Ala Tyr Ile Thr Pro Gly Ala Phe Asp Val
      <210> 64
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Thr Arg Ser Ser Gly Ser Ile Ala Ser Asn Tyr Val Gln
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Glu Asp Asn Gln Arg Pro Ser
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      <210> 66
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      <213> Homo sapiens
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Ser Tyr Asp Ser Ser Asn Val Val
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      <211> 5
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Gly
      <210> 69
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      <210> 70
      <211> 13
      <212> PRT
      <213> Homo sapiens
      <400> 70
Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn Thr Val His
      <210> 71
      <211> 7
      <212> PRT
       <213> Homo sapiens
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Ser Tyr Asn Gln Arg Pro Ser
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      <210> 72
       <211> 10
       <212> PRT
       <213> Homo sapiens
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Ser Trp Asp Asp Arg Leu Asn Gly Tyr Leu
       <210> 73
       <211> 5
       <212> PRT
       <213> Homo sapiens
      <400> 73
Asp Tyr Gly Met Ser
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